

REMARKS

By this amendment, claims 1, 26 and 30 have been amended. Claims 2, 3, 6-10, 14 and 15 were previously withdrawn. Claims 16-25 were previously cancelled.

Claims 1-15 and 26-30 are currently pending in the application, of which claims 2, 3, 6-10 and 15 are withdrawn. Reconsideration and allowance of all of the claims is respectfully requested in view of the foregoing amendments and the following remarks.

In regard to Rejections of Claims 1, 4, 5 and 11-13 Under 35 USC § 112

The Examiner has rejected claims 1, 4, 5 and 11-13 Under 35 USC § 112, first paragraph, as failing to comply with the written description requirement. The Examiner remarks that there is no clear support for the negative limitation of the newly amended claim reciting, “and wherein the piston slides from its roll-over position to its normal position independently of a fluid in the inner chamber when the valve rolls into an upright position”.

The Examiner has also rejected claims 1, 4, 5 and 11-13 Under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner remarks that the claimed limitation “wherein the piston slides from its rollover position to its normal position independently of a fluid pressure” is unclear because there is some dependence on the fluid pressure.

The Applicants believe that the Examiner's rejections have been addressed and overcome by the present amendment.

In response to the Examiner's remarks, claim 1 has been amended to recite that “the piston slides freely from its roll-over position to its normal position regardless of a fluid pressure in the inner chamber [...]”. This amendment is believed to be supported by paragraph [0050] of the application as originally filed.

This amendment should not be construed as a narrowing amendment. The purpose of this amendment is to restate in different terms what the Applicants originally intended to claim and no change in claim scope is intended or should be inferred.

Claim 1 as amended is believed to be definite, as the movement of the piston is adequately described in the specification, in particular paragraph [0050] thereof, so as to be understood by a person skilled in the art. Referring to paragraph [0050] of the specification,

[t]he channel 150 surrounds the lateral side of the piston 120 to ensure that pressure in the inlet 140 acts equally on all sides of the piston 120 so that the piston 120 can freely move in the valve housing 110 regardless of the pressure in the inlet line 140.

Claim 1 as amended is believed to be in full compliance with 35 USC § 112, and the Examiner is requested to withdraw his rejection of claim 1 and claims 4, 5 and 11-13 depending therefrom.

In regard to Rejection of Claim 30 Under 35 USC § 112, second paragraph

The Examiner has rejected claim 30 Under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. In particular, the Examiner considers the “tight clearance” to be unclear as to how tight the clearance may be, as well as how a surface can have a space or clearance. The Applicants believe that the Examiner’s rejection has been addressed and overcome by the present amendment.

In response to the Examiner’s remarks, claim 30 has been amended to recite that

the sealing surface cooperates with the lateral side of the valve housing by forming therebetween a sufficiently tight clearance to substantially prevent fluid flow therebetween.

Claim 30 as amended is believed to sufficiently clearly recite that the tight clearance is formed between the sealing surface and the lateral side of the valve housing, and that the clearance is sufficiently tight to substantially prevent fluid flow. The Applicants submit that a person skilled in the art would understand how tight a clearance would be required to substantially prevent fluid flow between the sealing surface and the lateral side of the valve housing.

This amendment should not be construed as a narrowing amendment. The purpose of this amendment is to restate in different terms what the Applicants previously claimed and no change in claim scope is intended or should be inferred.

Claim 30 as amended is believed to be in full compliance with 35 USC § 112, and the Examiner is requested to withdraw his rejection thereof.

In regard to Rejection of Claims 1, 4 and 11-13 Under 35 USC § 102(b)

The Examiner has rejected claims 1, 4 and 11-13 under 35 U.S.C. § 102(b), as being anticipated by Orenstein, International Publication No. WO00/53960. The Applicants believe that this rejection has been addressed and overcome by the present amendment.

The Examiner's attention is directed to the following feature of claim 1 as amended:

wherein the piston slides freely from its roll-over position to its normal position regardless of a fluid pressure in the inner chamber when the valve rolls into an upright position.

The Applicants submit that at least the above feature of claim 1 as amended is not taught by Orenstein.

Referring to lines 6-8 of page 9 of Orenstein, describing the valve of Orenstein in a closed position,

In this position, fuel filling via fuel port 85 is cut-off as there is a pressure build up within the volume 88 of the tank 16, entailing cut-off of the filling assembly (not illustrated).

Referring now to lines 17-20 of page 9 of Orenstein,

It will be appreciated that the opening of the inlet 40 occurs even if the tank is under essentially high pressure owing to the progressive detachment of the closure membrane strip 66 from the elongated slit-like inlet aperture 40.

Referring now to lines 28-3 of pages 9-10 of Orenstein,

It is appreciated that once the pressure within the fuel tank 16 drops, and as the first stage member 32 is positively detached from the outlet 22 of the housing 12 with consecutive disengagement of sealing member 50 from the valve seating 24, then the first stage member will continue to displace into the initial position seen in Fig. 1 wherein it rests over the second stage member 34.

It is apparent that there is a pressure build up in the tank 16 of Orenstein when the valve is closed, and this pressure inherently resists reopening of the valve of Orenstein by exerting an upward pressure on the sealing member 50, thereby urging it against the valve seating 24. Orenstein attempts to address this resistance by providing a closure membrane strip 66 that progressively detaches from an aperture 40, thereby gradually equalizing the pressure within the tank 16 and allowing the valve to reopen. As such, the opening of the valve of Orenstein is resisted by the “essentially high pressure” within the tank, and the valve of Orenstein must overcome and gradually equalize this pressure in order to open. The first stage member 32 of Orenstein continues to displace into its initial (valve open) position “once the pressure within the fuel tank 16 drops”. Therefore, while Orenstein teaches a valve that opens even if the tank is under essentially high pressure, Orenstein does not teach a piston sliding freely from its roll-over position to its normal position regardless of a fluid pressure in the inner chamber when the valve rolls into an upright position.

Therefore, at least one feature of claim 1 as amended is not taught by Orenstein, and the Examiner is requested to withdraw his rejection of claim 1 and claims 4 and 11-13 depending therefrom.

In regard to Rejection of Claims 1, 4, 5, 11, 12 and 26-30 Under 35 USC § 102(b)

The Examiner has rejected claims 1, 4, 5, 11, 12 and 26-30 under 35 U.S.C. § 102(b), as being anticipated by Matsudaira, U.S. Patent No. 3,288,992. The Applicants believe that this rejection has been addressed and overcome by the present amendment.

The Examiner’s attention is directed to the following feature of claims 1 and 26 as amended:

an inlet opening disposed in a lateral side of the inner chamber

The Applicants submit that at least the above feature of claims 1 and 26 as amended is not taught by Matsudaira.

Referring to Figure 5 of Matsudaira, it is apparent that the inlet openings 65 and 70 into the inner chamber are disposed at axial ends of the inner chamber 61 and not in lateral sides thereof. The vent port 62 of Matsudaira, while disposed in a lateral side of the inner chamber in the embodiment of Figure 5, is an outlet opening and not an inlet opening.

Therefore, Matsudaira does not teach an inlet opening disposed in a lateral side of an inner chamber.

Therefore, at least one feature of claims 1 and 26 as amended is not taught by Matsudaira, and the Examiner is requested to withdraw his rejection of claim 1 and claims 4, 5, 11 and 12 depending therefrom, as well as claim 26 and claims 27-30 depending therefrom.

In regard to Rejection of Claim 5 Under 35 USC § 103(a)

The Examiner has rejected claim 5 under 35 U.S.C. § 103(a), as being unpatentable over Orenstein in view of Cryder, U.S. Patent No. 3,529,624. The Applicants believe that this rejection has been addressed and overcome by the present amendment.

The Examiner's attention is directed to the following feature of claim 1 as amended:

wherein the piston slides freely from its roll-over position to its normal position regardless of a fluid pressure in the inner chamber when the valve rolls into an upright position.

As discussed above with respect to claims 1, 4 and 11-13, the above feature of claim 1 as amended is not taught by Orenstein.

This deficiency in Orenstein is not remedied by Cryder, without admitting that Cryder can be combined with Orenstein and reserving the right to argue thereagainst in the future.

Referring to lines 12-18 of column 3 of Cryder,

[w]hen the fluid pressure in the protective circuit exceeds a predetermined value, the fluid within the chamber 24 acts upon the differential area 57 of the spool 46, and forces the latter to move against the force of the spring 52, and into an open position in which the seating portion 56 is separated from the valve seat 42.

Referring now to lines 26-29 of column 3 of Cryder,

[t]he spool 46 when the fluid pressure in the protected circuit has returned to normal, is moved by the spring 52 into its original closed position of seating against the valve seat 42.

It is apparent that the spool 46 of Cryder is moved from the closed position to the open position by the action of the pressure in the protective circuit against the force of the spring 52. It is also apparent that the spool 46 of Cryder is moved from the open position to the closed position by the action of the spring 52 once the fluid pressure in the protected circuit has returned to normal. As such, the movement of the spool 46 of Cryder in both directions is dependent on the fluid pressure in the protected circuit. Therefore, the spool 46 of Cryder does not move freely in either direction regardless of the fluid pressure in the circuit. Therefore, Cryder does not teach a piston sliding freely from its roll-over position to its normal position regardless of a fluid pressure in the inner chamber when the valve rolls into an upright position.

Therefore, at least one feature of claim 1 as amended is not taught by Orenstein or Cryder, alone or in combination, which combination is not admitted. As such, the Examiner is requested to withdraw his rejection of claim 5 depending therefrom.

Request for rejoinder of withdrawn claims

It is requested that claims 2, 3, 6-10, 14 and 15, previously withdrawn, be rejoined and allowed, given their dependence from claim 1.

In view of the above remarks, the Applicants respectfully submit that all of the currently pending claims are allowable and that the entire application is in condition for allowance.

Should the Examiner believe that anything further is desirable to place the application in a better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

At the time of filing of the present response, the Office was authorized to charge the fees believed to be necessary to a credit card. In case of any under- or over-payment or should any additional fee be otherwise necessary, the Office is hereby authorized to credit or debit (as the case may be) Deposit Account number 502977.

Respectfully submitted,

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